

QUARTERLY JOURNAL
of the
FLORIDA ACADEMY OF SCIENCES

Vol. 35

December, 1972

No. 4

Notes on Parasites of Gray Squirrels from Florida

J. C. PARKER, E. J. RIGGS, AND R. B. HOLLIMAN

IN DECEMBER, 1969, three male and one female gray squirrels, *Sciurus carolinensis carolinensis* Gmelin, 1788, were collected on a farm woodlot in Marion County near Ocala, Florida. These squirrels were examined for intestinal and blood protozoa and intestinal helminths, which revealed at least two species of eimerian coccidia, one species of cestode, one species of acanthocephalan and four species of nematodes.

A review of the literature yielded only two references concerning internal parasites in this host from Florida. Bond and Bovee (1958) reported *Eimeria* sp. from this host and Chandler (1947) reported *Moniliformis clarki* (Ward, 1917).

Analysis of the fecal material revealed the oocysts of two forms of eimerian coccidia. The first was observed in all hosts examined and was ellipsoidal in shape, resembling the organism described as *Eimeria* sp. by Bond and Bovee (1958). The second resembled the characteristic pyriform-shaped oocysts of *Eimeria ontarioensis* Soon and Dorney (In press) and occurred in only one of the hosts examined. Also helminth eggs were observed in all fecal samples.

The examination of the visceral organs revealed the cestode, *Raillietina bakeri* Chandler, 1942, in the small intestine of 2 squirrels; one tapeworm was recovered from one host, two from the other. The acanthocephalan, *Moniliformis clarki* Ward, 1917, occurred in the small intestine of two hosts; 3 worms in one squirrel, one in the other. The largest of these worms measured 325 mm in length and filled most of the lumen of the small intestine. The average length of the 4 worms was 167 mm.

The nematode, *Heligmodendrium hassalli* (Price, 1929) was found in the small intestine of 3 hosts (1, 44, and 115 worms per host). Twenty-five specimens of *Strongyloides robustus* Chandler, 1942, were recovered from the small intestine of one squirrel. One specimen of *Syphacia* (*Syphacia*) *thompsoni* Price, 1928, was found in the cecum of each of two hosts, and one *Trichostrongylus calcaratus* Ransom, 1911, was recovered from the cecum of a single host.

The examination of Wright's stained blood smears for presence of *Hepatozoon* and microfilariae was negative.

This report tentatively extends the present known distribution of *Eimeria ontarioensis* from Canada to Florida. Apparently, *Syphacia* (*Syphacia*) *thompsoni*, *Heligmodendrium hassalli*, *Strongyloides robustus*, and *Trichostrongylus calcaratus* are new records for this host in Florida. *Railletina bakeri* appears to be a new host record.

We are grateful to Dr. R. S. Dorney of the University of Waterloo, Ontario, Canada, for information on his new coccidian, *E. ontarioensis*.

LITERATURE CITED

- BOND, B. B., AND E. C. BOVEE. 1958. A redescription of an eimerian coccidian from the flying squirrel, *Glaucomys volans*, designating it *Eimeria parasciurorum* nov. sp. Jour. Protozool., vol. 4, pp. 225-229.
- CHANDLER, A. C. 1947. Notes on *Moniliformis clarki* in North American squirrels. Jour. Parasit., vol. 33, pp. 278-281.
- SOON, B. L., AND R. S. DORNEY. In press. *Eimeria ontarioensis* n. sp., *E. wongi* n. sp. and *Eimeria* sp. (Protozoa: Eimeriidae) from the Ontario gray squirrel *Sciurus carolinensis*. Jour. Protozool.

Department of Biology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 24061.

Quart. Jour. Florida Acad. Sci. 35(4) 1972 (1974)